1. Triphon Analysis

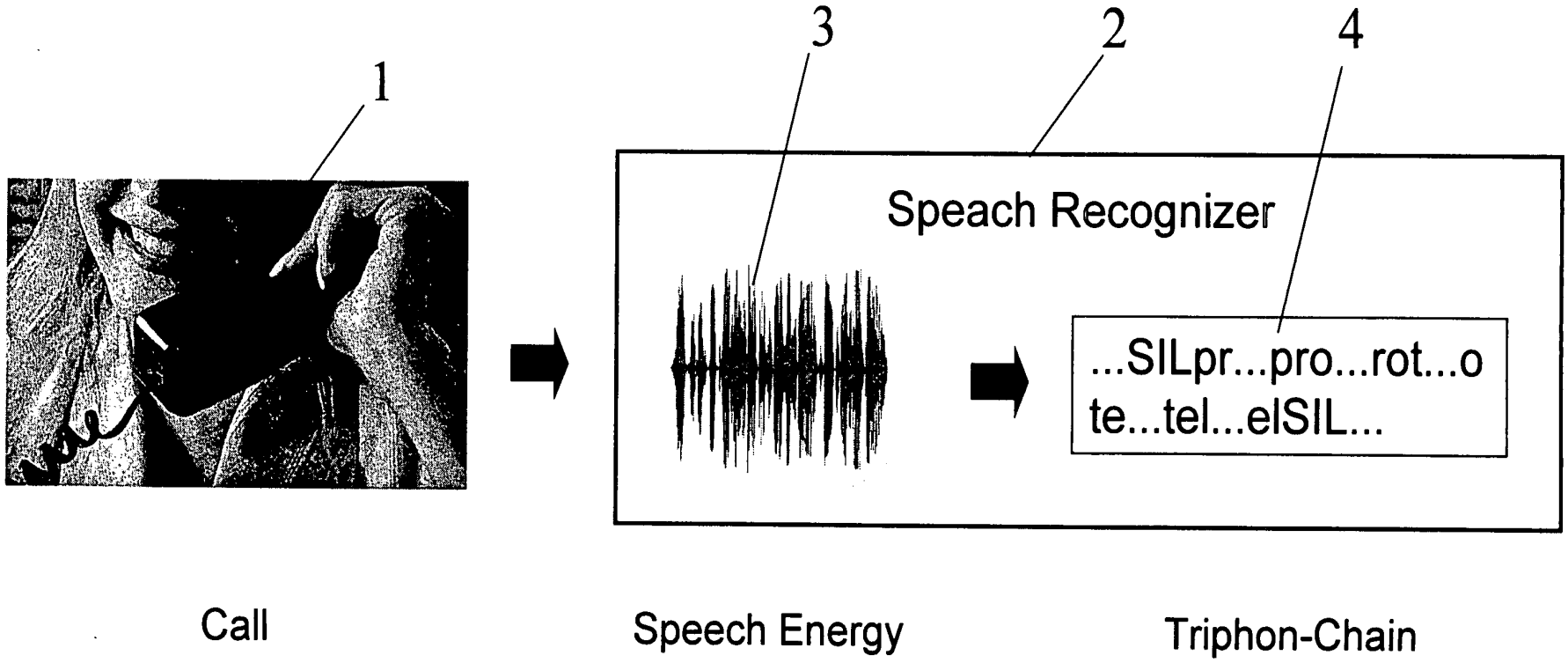


Fig. 1

OIPE IAP67 JAN 09 2008 PATENT & TRADEMARK OFFICE

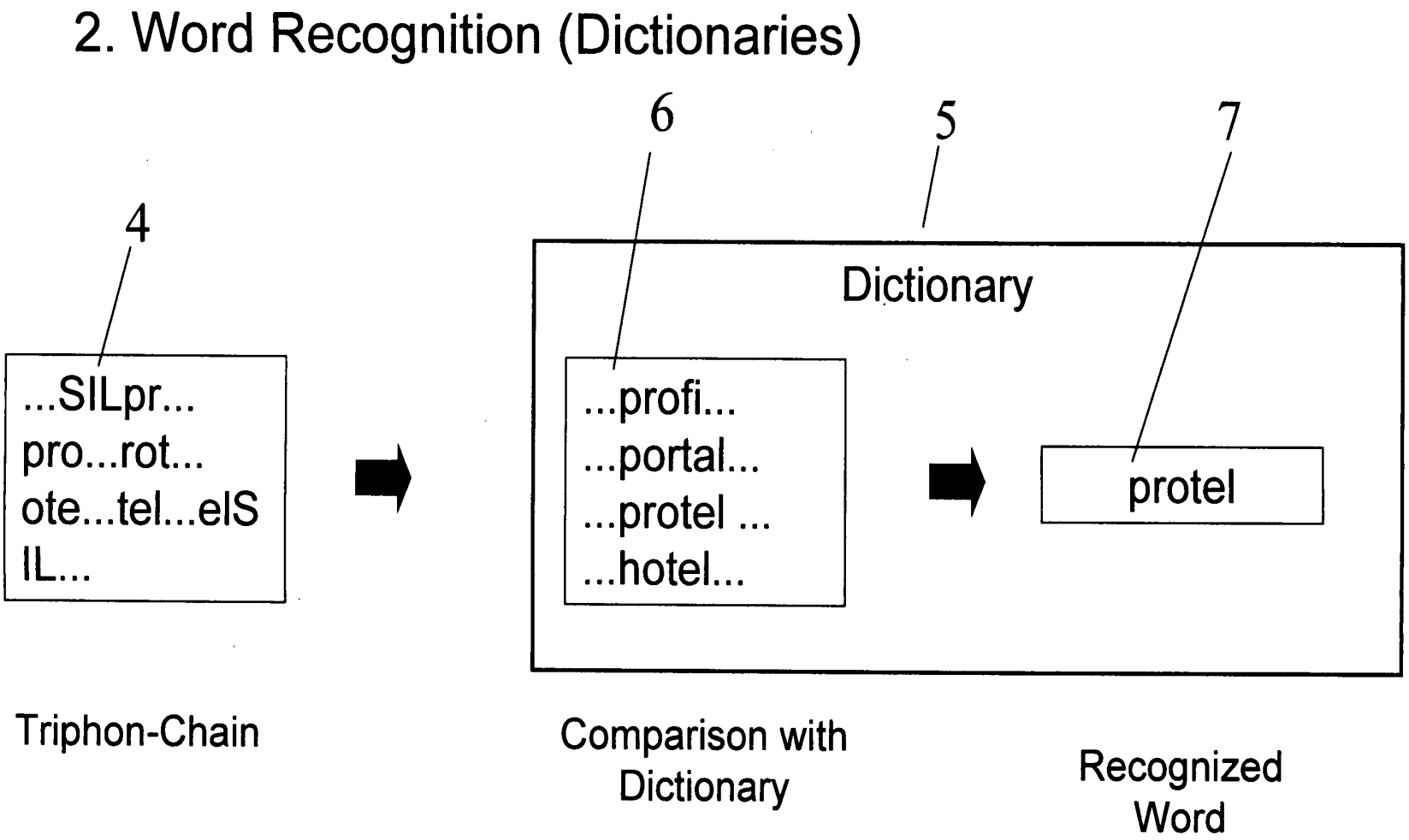

2. Word Recognition (Dictionaries)
6
5
7
4
Dictionary
...SILpr...
pro...rot...
ote...tel...elS
lL...
...profi...
...portal...
...protel ...
...hotel...
protel
Triphon-Chain
Comparison with Dictionary
Recognized Word

Fig. 2

3. Syntactic Reconstruction (Grammar)

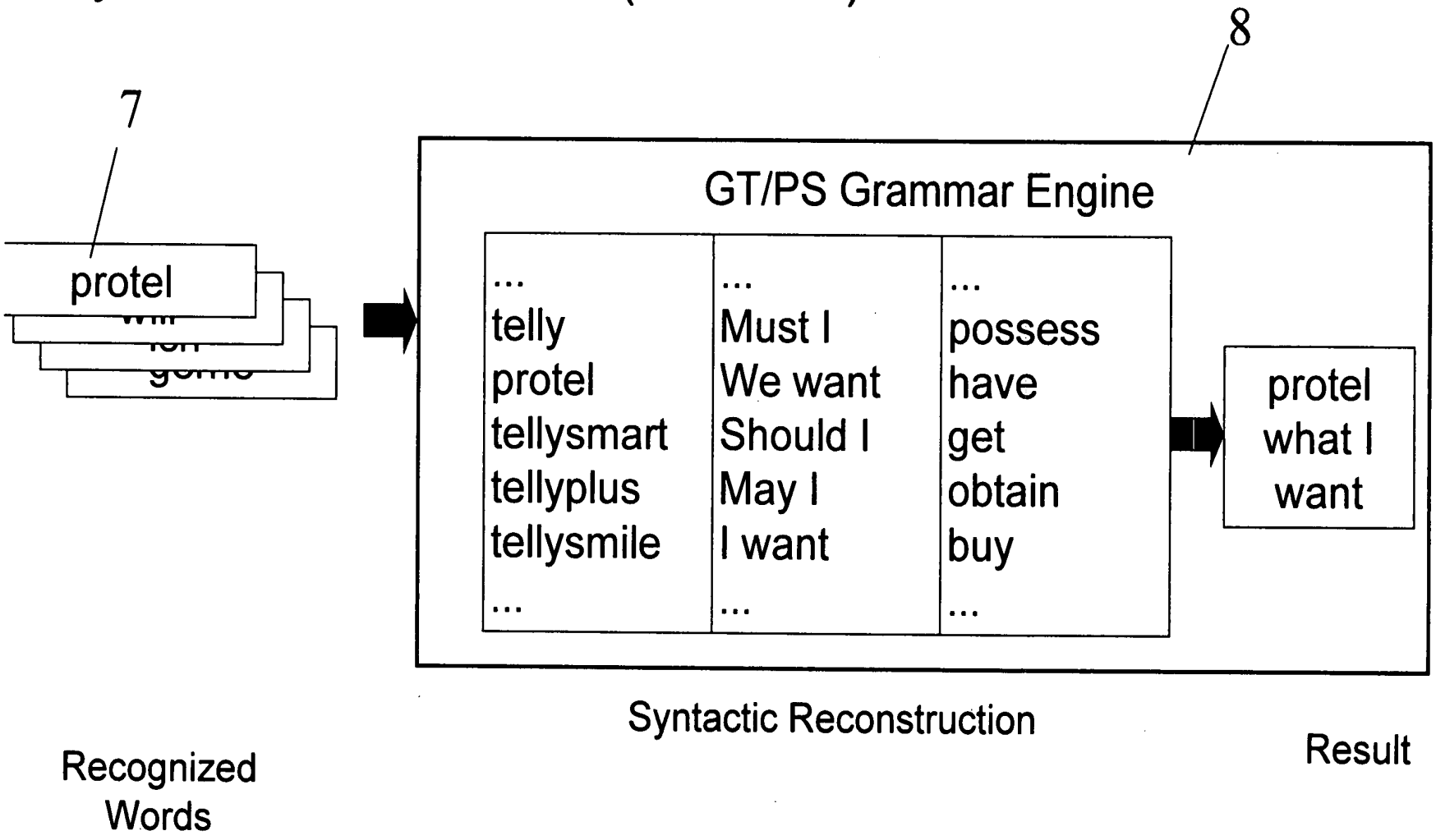
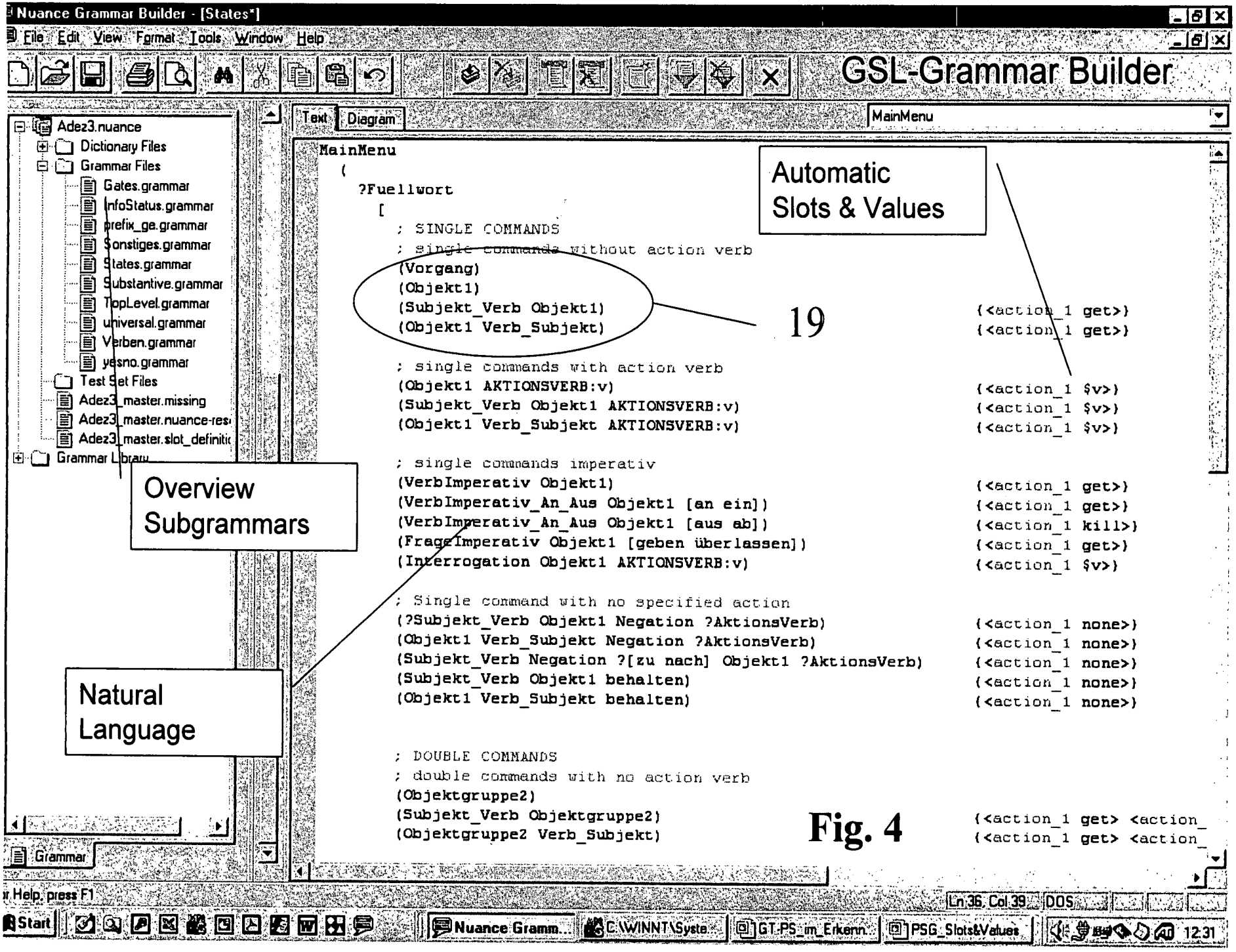


Fig. 3




```
MainMenu
  (
    ?Fuellwort
      [
        ; SINGLE COMMANDS
        ; single commands without action verb
        (Vorgang)                                          (<action_1 get>)
        (Objekt1)                                          (<action_1 get>)
        (Subjekt_Verb Objekt1)
        (Objekt1 Verb_Subjekt)

        ; single commands with action verb
        (Objekt1 AKTIONSVERB:v)                            (<action_1 $v>)
        (Subjekt_Verb Objekt1 AKTIONSVERB:v)               (<action_1 $v>)
        (Objekt1 Verb_Subjekt AKTIONSVERB:v)               (<action_1 $v>)

        ; single commands imperativ
        (VerbImperativ Objekt1)                            (<action_1 get>)
        (VerbImperativ_An_Aus Objekt1 [an ein])            (<action_1 get>)
        (VerbImperativ_An_Aus Objekt1 [aus ab])            (<action_1 kill>)
        (FrageImperativ Objekt1 [geben überlassen])        (<action_1 get>)
        (Interrogation Objekt1 AKTIONSVERB:v)              (<action_1 $v>)

        ; Single command with no specified action
        (?Subjekt_Verb Objekt1 Negation ?AktionsVerb)      (<action_1 none>)
        (Objekt1 Verb_Subjekt Negation ?AktionsVerb)       (<action_1 none>)
        (Subjekt_Verb Negation ?[zu nach] Objekt1 ?AktionsVerb)  (<action_1 none>)
        (Subjekt_Verb Objekt1 behalten)                    (<action_1 none>)
        (Objekt1 Verb_Subjekt behalten)                    (<action_1 none>)


        ; DOUBLE COMMANDS
        ; double commands with no action verb
        (Objektgruppe2)
        (Subjekt_Verb Objektgruppe2)                       (<action_1 get> <action_
        (Objektgruppe2 Verb_Subjekt)                       (<action_1 get> <action_
```

Fig. 4

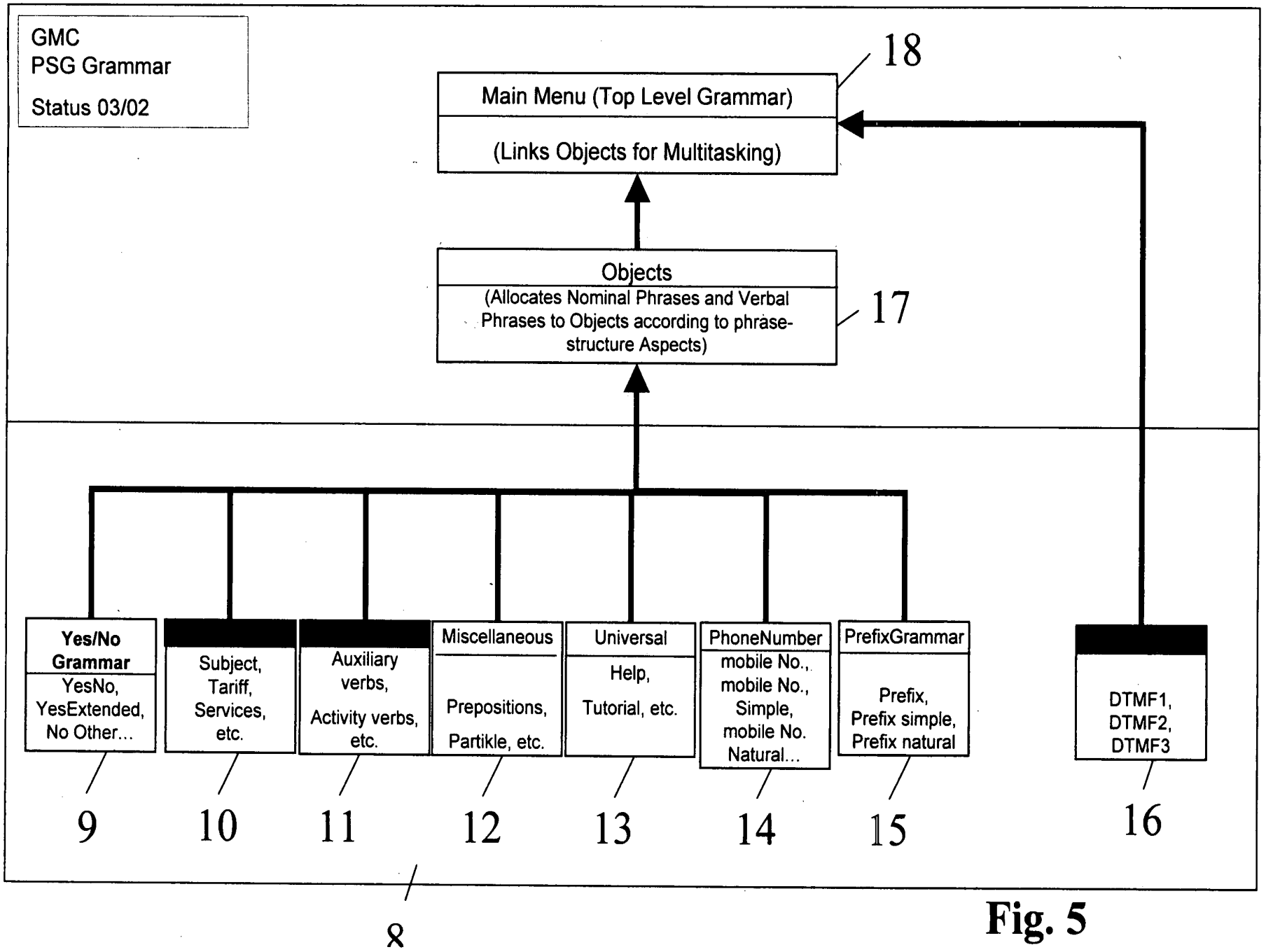

GMC
PSG Grammar
Status 03/02
18
Main Menu (Top Level Grammar)
(Links Objects for Multitasking)
Objects
(Allocates Nominal Phrases and Verbal Phrases to Objects according to phrase-structure Aspects)
17
Yes/No Grammar
YesNo, YesExtended, No Other...
Subject, Tariff, Services, etc.
Auxiliary verbs, Activity verbs, etc.
Miscellaneous
Prepositions, Partikle, etc.
Universal
Help, Tutorial, etc.
PhoneNumber
mobile No., mobile No., Simple, mobile No. Natural...
PrefixGrammar
Prefix, Prefix simple, Prefix natural
DTMF1, DTMF2, DTMF3
9
10
11
12
13
14
15
16
8

Fig. 5

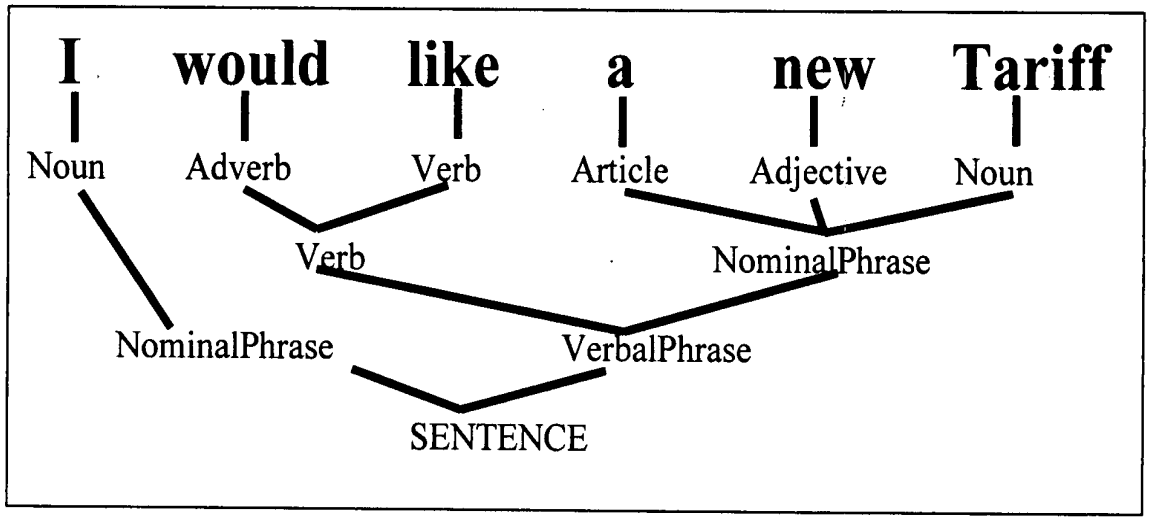

I would like a new Tariff
Noun
Adverb
Verb
Article
Adjective
Noun
Verb
NominalPhrase
NominalPhrase
VerbalPhrase
SENTENCE

Fig. 6

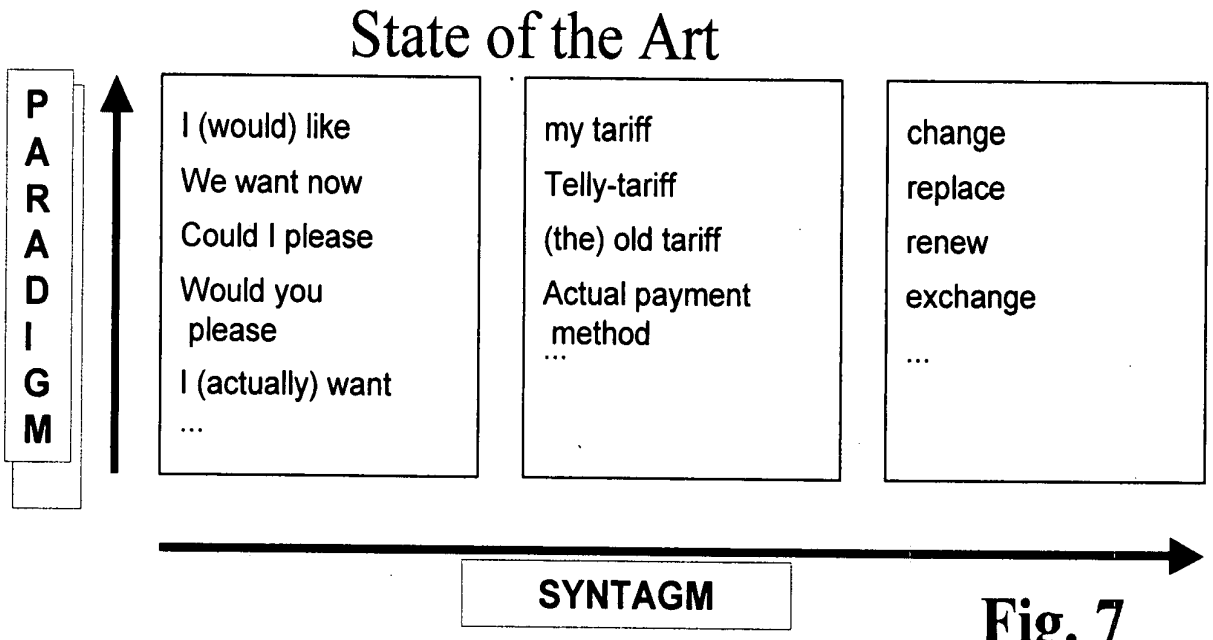

State of the Art
PARADIGM
I (would) like
We want now
Could I please
Would you please
I (actually) want
...
my tariff
Telly-tariff
(the) old tariff
Actual payment method
...
change
replace
renew
exchange
...
SYNTAGM

Fig. 7